ABSTRACT OFTHE DISCLOSURE

Method and apparatus for simultaneous optimization of the compiler to generate codes that may be compatible and acceptable for two or more different processors without potentially sacrificing the performance on any processors is provided. In particular, the rules of instructions scheduling for the machines of interest of different processors are abstracted. From the abstractions, a hypothetical machine is generated that is the restrictive or constraining set of the actual machines modeled in the abstraction step. After generating the hypothetical machine, the restricted hypothetical machine is targeted rather than the actual machines modeled in the first step. Thereafter, conflicts, if any are resolved by modeling the performance impact and selecting the less damaging choice. In this manner, by creating a hypothetical machine model which incorporates the features of all target machines of interest and which is more restrictive or constrained that the actual machines modeled, it is possible to simultaneously optimize the code targeting multiple machines.